

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷: G01B 11/29, 11/30	A1	(11) International Publication Number: WO 00/45125 (43) International Publication Date: 3 August 2000 (03.08.00)
(21) International Application Number: PCT/SE00/00024 (22) International Filing Date: 10 January 2000 (10.01.00) (30) Priority Data: 9900276-8 28 January 1999 (28.01.99) SE (71) Applicant (for all designated States except US): STFI [SE/SE]; Box 5604, S-114 86 Stockholm (SE). (72) Inventors; and (75) Inventors/Applicants (for US only): JOHANSSON, Per-Åke [SE/SE]; Dalagatan 20, S-113 24 Stockholm (SE). HANS- SON, Peter [SE/SE]; Genberg, Gårdsfogdevägen 29, S-161 70 Bromma (SE). (74) Agents: STEFAN, Lennefors et al.; AB Stockholms Patentbyrå, Zacco & Bruhn, Box 23101, S-104 35 Stockholm (SE).		(81) Designated States: AU, CA, JP, NZ, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> <i>In English translation (filed in Swedish).</i>

(54) Title: METHOD OF DETERMINING AN ILLUMINATED SURFACE**(57) Abstract**

Method of determining a surface illuminated by incident light. First the intensity ($I_1(x,y)$) of light reflected from the surface is recorded in a first image of the surface. After this, the intensity ($I_2(x,y)$) of light reflected from the surface is recorded in a second image of the surface, taken at a different angle of illumination. Only the diffusely reflected light is recorded. The difference between the recorded intensities of the first and the second images is determined to obtain a representation that emphasises variations in gradient of the surface. This representation is further processed by signal-adapted integration to a topographic description, that is, a height function of the surface.

